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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,832	09/23/2005	Bansei Nagase	14836-018US 04P227HY-USPO	1736
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EXAMINER				
EVANS, ERIN LINDSAY				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
09/17/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary

Application No.

10/550,832

Applicant(s)

NAGASE ET AL.

Examiner

ERIN EVANS

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-US)
Paper No(s)/Mail Date 09/23/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election Acknowledged

1. Applicants' election without traverse of the invention group I of claims 1-10 is acknowledged. Claims 11-20 are withdrawn from consideration as being drawn to a nonelected invention. The elected claims 1-10 are presented for the examination. The following rejections are made.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kummer et al, DE19854760.

Regarding claim 1, Kummer et al teach a method of forming a protective layer (removable surface protection, see translation), comprising the steps of applying liquid material to an object from a sprayer mechanism of a coating device and drying said liquid material to form a peelable protective layer, wherein said sprayer mechanism sprays said liquid material such that said liquid material is distributed locally at a position close to an edge of said object, and distributed widely at a position away from

said edge of said object (see Figure 2, wherein nozzle 8 distributes liquid locally and nozzle 7 distributes widely).

Regarding claim 2, Kummer teaches that the coating device is a robot, said sprayer mechanism is attached to an arm of said robot, and said object is a vehicle body (Robot 3, arm 6, vehicle 4 of Figure 2).

Regarding claim 3, the sprayer mechanism of Kummer comprises a plurality of sprayer mechanisms (side arms and top arms with multiple nozzles), and said coating device comprises a plurality of coating devices corresponding to said sprayer mechanisms, said coating devices are robots, said sprayer mechanisms are attached to corresponding arms of said robots, and said object is a vehicle body.

Regarding claim 4, Kummer teaches the use of movable arms 6, with first and second sprayers 7 and 8, and therefore teaches that the sprayer mechanism comprises a first sprayer and a second sprayer which are placed in parallel on an arm of said coating device, said method comprising the step of moving said first sprayer close to said edge and moving said second sprayer away from said edge, and when said liquid material is sprayed from said first sprayer and said second sprayer towards said object, said liquid material is distributed locally from said first sprayer, and said liquid material is distributed widely from said second sprayer.

Regarding claim 7, Kummer teaches that the spray pressure of liquid material from the first sprayer (here, sprayer 8 which sprays locally at the edge at 6 bar) is smaller than that of the second sprayer (here, sprayer 7, which sprays widely away from

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the edge at 40 bar).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 5-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kummer et al, as applied to claims 1-4 and 7 above, in view of Komon et al, US Patent 4,578,290.

As discussed in paragraph 3 above, Kummer et al teach the method substantially as claimed. Kummer et al fail to teach the use of a middle sprayer with the required intervals and pressures.

Regarding claims 5 and 6, Komon et al teach a coating apparatus with first, middle, and second sprayers (nozzles 1, 3, and 4 of figure 1) which result in improved coating without unwanted spots or "tails" of film (see Abstract). The outer nozzles are inclined and the nozzles are spaced at increasing intervals, as required by claim 6 (see column 4, lines 16-22), so as to distribute liquid locally at the edge near first sprayer (nozzle 1), more widely from the middle sprayer (nozzle 3), and most widely from the second sprayer (nozzle 4).

Regarding claim 8, as discussed previously in paragraph 3, Kummer et al teach the use of more pressure to the second sprayer which distributes liquid widely away from the edge and less pressure to the first sprayer which distributes liquid locally at the edge. The use of the middle sprayer of Komon et al to provide an intermediate distribution of liquid between the first and second sprayers would require an intermediate pressure as presently claimed.

It would have been obvious to one of ordinary skill in the art at the time the present invention was made that the coating apparatus of Komon et al could be combined with that of Kummer et al because both tools are used for coating vehicle

bodies. One would have been motivated to combine the teachings of these references and arrive at the present invention in order to benefit from the improved coating provided by Komon et al.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kummer in view of Komon as applied to claims 5-6 and 8 above, and further in view of Muruyama et al, US Patent 5,645,895.

As discussed in paragraph 6 above, Kummer in view of Komon teach the method substantially as claimed but fail to teach the use of multiple middle sprayers.

Muruyama et al teach the use of multiple-sprayer mechanism, which includes two middle sprayers between outer first and second sprayers, to coat an automobile body (see Figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made that the apparatus of Muruyama could be used with that as taught by Kummer in view of Komon as all three teachings are drawn toward coating automobiles. One would have been motivated to combine the teachings and arrive at the present invention in order to gain a wider working area and more coating control as would be provided by the use of multiple sprayers.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kummer et al, as applied to claim 1 above, in view of Bederke et al, US Patent 5,698,330.

As discussed in paragraph 3, Kummer et al teach the method substantially as claimed. Kummer et al fail to specify that the liquid contains acrylic copolymer as a main

component. However, it is noted that the liquid is an aqueous polymer dispersion. Bederke et al further teach that acrylic copolymers are useful as automobile coatings (Abstract). The resulting coating has a high corrosion resistance. It would have been obvious to those of ordinary skill in the art at the time of the present invention that the coating composition of Bederke et al could be used as the coating taught by Kummer et al. One would have been motivated to combine the teachings of these references and arrive at the present invention in order to provide the increased corrosion resistance as taught by Bederke et al.

Conclusion

9. Claims 1-20 are pending in the application.
10. Claims 11-20 have been withdrawn and claims 1-10 have been rejected.
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIN EVANS whose telephone number is (571)270-5354. The examiner can normally be reached on Monday thru Friday, 7am to 4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIN EVANS/
22 August 2008
Examiner, Art Unit 1792

/Michael Kornakov/
Supervisory Patent Examiner, Art Unit 1792